

1. A method of assembling an ink filtration system in fluid communication with an ink source comprising the steps of:
 - providing a printhead base including at least one ink channel in fluid communication with at least one nozzle;
 - positioning an ink filter in fluid communication with at least the one ink channel of the printhead base; and
 - laser welding the ink filter in series with the printhead base to provide a sealed fluidic interface therebetween ensuring that ink within at least the one ink channel has passed through the ink filter.
2. The method of claim 1, wherein the ink filter includes a transparent polymer material.
3. The method of claim 1, wherein the ink filter includes an opaque polymer material.
4. The method of claim 1, wherein the ink filter includes a metal.
5. The method of claim 1, wherein the metal includes stainless steel.
6. The method of claim 1, wherein the printhead base includes a standpipe to which the ink filter is mounted thereto.
7. The method of claim 1, further comprising the step of laser welding an ink filter cap onto the printhead base.
8. The method of claim 7, wherein the ink filter is between the ink filter cap and the printhead base.

9. A method of assembling components of an ink filtration system adapted to be associated with an inkjet printer, comprising the steps of:
 - providing a printhead base having at least one ink channel in fluid communication with at least one nozzle;
 - providing an ink filter cap;
 - providing an ink filter interposing the printhead base and the ink filter cap;
 - and
 - laser welding at least one of the printhead base, the ink filter cap, and the ink filter to at least another of the printhead base, the ink filter cap, and the ink filter to provide a sealed fluidic laser welded joint therebetween.
10. The method of claim 9, further comprising the step of aligning the ink filter with respect to an orifice in the ink filter cap.
11. The method of claim 9, further comprising the step of aligning the ink filter with respect to an orifice in a standpipe of the printhead base.
12. The method of claim 9, wherein the ink filter comprises a transparent polymer material.
13. The method of claim 9, further comprising an ink flow regulator mounted to the ink filter cap.
14. The method of claim 9, wherein the ink filter comprises an opaque polymer material.
15. The method of claim 9, wherein the ink filter comprises a metal.
16. The method of claim 9, wherein metal includes stainless steel.

Docket No. 2003-0072.01

17. The method of claim 9, wherein the ink filter is mounted to the printhead base in an earlier step, and the ink filter cap is laser welded to the printhead base in a later step.
18. The method of claim 9, wherein the ink filter is mounted to the ink filter cap in an earlier step, and the ink filter cap is laser welded to the printhead base in a later step.
19. The method of claim 9, wherein the ink filter is laser welded to the ink filter cap in an earlier step, and the ink filter cap is mounted to the printhead base in a later step.
20. The method of claim 9, wherein the ink filter is laser welded to the printhead base in an earlier step, and the ink filter cap is mounted to the printhead base in a later step.
21. The method of claim 9, wherein the ink filter is laser welded to the printhead base in an earlier step, and the ink filter cap is laser welded to the printhead base in a later step.
22. The method of claim 9, wherein the ink filter is laser welded to the ink filter cap in an earlier step, and the ink filter cap is laser welded to the printhead base in a later step.
23. The method of claim 9, wherein the ink filter, the ink filter cap, and the printhead base are mounted together in a single laser welding step.

24. An ink cartridge comprising:
- a printhead base comprising a heater chip, the plurality of nozzles, and a TAB circuit;
 - a container adapted to house a reservoir of ink therein, the container having a conduit directing ink within the reservoir toward the plurality of nozzles associated with the printhead base; and
 - an ink filter laser welded to the container conduit to inhibit particulate debris from entering the conduit.
25. The ink cartridge of claim 24, further comprising an ink filter cap mounted to the container conduit.
26. The ink cartridge of claim 25, wherein the ink filter is positioned between the container conduit and the ink filter cap.
27. A method of assembling components of an ink regulation and filtration system for an inkjet printer comprising the steps of:
- providing a printhead base having at least one ink channel in fluid communication with at least one nozzle;
 - providing an ink filter in fluid communication with at least the one ink channel of the printhead base;
 - providing an ink flow regulator in fluid communication with at least the one ink channel; and
 - laser welding at least two of the printhead base, the ink filter, an ink filter cap, and the ink flow regulator together to provide a sealed fluidic interface and ensure that ink within at least the one ink channel has passed through the ink filter before reaching at least the one nozzle.
28. The method of claim 27, wherein the ink filter is laser welded to the printhead base.

29. The method of claim 27, wherein the ink filter cap is laser welded to the printhead base.
30. The method of claim 27, wherein the ink filter cap is laser welded to the ink filter.
31. The method of claim 27, wherein the ink filter cap and ink filter are laser welded to the printhead base.
32. A method of mounting an ink filter in fluid communication with a plurality of nozzles associated with a printhead base comprising the step of:
providing a sealed fluidic conduit between a source of ink and a channel in fluid communication with a nozzle of a printhead base, the sealed fluidic conduit includes an ink flow regulator, an ink filter, and an ink filter cap, wherein at least one of the ink flow regulator, the ink filter, and the ink filter cap are laser welded to provide the sealed fluidic conduit between the source of ink and the channel in fluid communication with the nozzle of the printhead base.
33. A method of mounting components of an inkjet printer cartridge comprising the steps of:
mounting an ink filter to a standpipe of a printhead base; and
mounting an ink filter cap to the standpipe of the printhead base.
34. The method of claim 33, wherein the mounting steps occur concurrently.
35. The method of claim 33, wherein the ink filter is laser welded to the standpipe of the printhead base.
36. The method of claim 33, wherein the ink filter is laser welded to the ink filter cap.

37. The method of claim 33, wherein the ink filter is mounted to an inner circumferential ledge of the standpipe that is recessed from an upper circumferential surface onto which the ink filter cap is mounted to the standpipe.
38. The method of claim 37, wherein the ink filter cap is laser welded to the upper circumferential surface of the standpipe.
39. The method of claim 37, wherein the ink filter is laser welded to the inner circumferential ledge of the standpipe.
40. A method of mounting components of an inkjet cartridge using a laser welding apparatus, wherein the method includes at least one step from the group consisting of laser welding an ink filter to a printhead base, laser welding an ink filter cap to an ink filter, laser welding an ink filter cap to a printhead base, laser welding an ink filter to an ink flow regulator, laser welding an ink filter cap to an ink flow regulator, laser welding an ink flow regulator to a printhead base, laser welding an ink flow regulator to an ink reservoir conduit, and laser welding an ink filter cap to an ink reservoir conduit.
41. A method of accommodating viscous material flow from a laser welded joint comprising the step of:
providing a cavity in proximity to a joint into which viscous material resulting from a laser welding process may flow, the cavity being bounded in part by an angled surface not parallel to the direction of flow of the viscous material, wherein the joint lies on a first plane and the angle between the first plane and the angled surface is greater than 90 degrees.
42. A method of accommodating viscous material flow from a laser welded joint comprising the step of:
providing a trap available for a viscous material generated from a laser welding process to flow into, the laser welding process mounting at least two

components together to form a joint lying on a first plane, wherein a first cross-sectional area of the trap taken along the first plane is less than a second cross-sectional area attributable to a second cross-section taken along a second plane spaced and parallel to the first plane.

43. A method of accommodating viscous material flow from a laser welded joint comprising the step of:

providing a cavity in proximity to a joint between a first component and a second component to accommodate a flow of a viscous material from the joint during a laser welding procedure to mount the first component to the second component, the cavity defined in part by a tapered flange unevenly spaced from an opposing wall, wherein the opposing wall is a constituent of a first component and the tapered flange is a constitute of a second component.

44. A method of accommodating viscous material flow from a laser welded joint comprising the step of:

providing an ink filter cap having a flange at least partially circumscribing an outer wall of a standpipe, the ink filter cap contacting the standpipe to form an interface therebetween, the flange being separated from the outer wall of the standpipe to leave a gap into which viscous material may flow from the interface upon application of a laser the interface, wherein the flange generally includes an angled wall facing the outer wall of the standpipe, and wherein the distance between the angled wall and the outer wall of the standpipe increases concurrently as the distance between the interface and the angled wall increases.